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ROBERT C. KOWERT			CHEN, SHIN HON	
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Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No. Applicant(s)				
Office Action Summary		09/653,227	TRAVERSAT ET AL.			
		Examiner	Art Unit			
		Shin-Hon Chen	2131			
Period fe	The MAILING DATE of this communication apports or Reply	ears on the cover sheet with the	correspondence address			
THE - Exte after - If the - If NO - Faill Any	MAILING DATE OF THIS COMMUNICATION. ensions of time may be available under the provisions of 37 CFR 1.13 or SIX (6) MONTHS from the mailing date of this communication. The period for reply specified above is less than thirty (30) days, a reply or period for reply is specified above, the maximum statutory period ware to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be to within the statutory minimum of thirty (30) dayold apply and will expire SIX (6) MONTHS from a cause the application to become ABANDON	imely filed sys will be considered timely. In the mailing date of this communication. ED (35 U.S.C. § 133).			
Status						
1)⊠	Responsive to communication(s) filed on 16 No	ovember 2004.				
•	This action is FINAL . 2b) This action is non-final.					
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposit	ion of Claims					
5)□ 6)⊠ 7)□	Claim(s) 1-6,8-31,33-47 and 49-72 is/are pend 4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed. Claim(s) 1-6, 8-31, 33-47, and 49-72 is/are rejection(s) is/are objected to. Claim(s) are subject to restriction and/or	vn from consideration.				
Applicat	ion Papers					
10)⊠	The specification is objected to by the Examine The drawing(s) filed on <u>31 August 2000</u> is/are: Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	a)⊠ accepted or b)⊡ objected drawing(s) be held in abeyance. Se ion is required if the drawing(s) is ol	ee 37 CFR 1.85(a). bjected to. See 37 CFR 1.121(d).			
Priority (under 35 U.S.C. § 119					
a)	Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1 Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau See the attached detailed Office action for a list	s have been received. s have been received in Applica ity documents have been receiv u (PCT Rule 17.2(a)).	tion No ved in this National Stage			
Attachmer	• •	»□····•	(DTO 440)			
2) 🔲 Notic	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) er No(s)/Mail Date 7/31/01	4) Interview Summar Paper No(s)/Mail D 5) Notice of Informal 6) Other:				

DETAILED ACTION

1. Claims 1-6, 8-31, 33-47, and 49-72 have been examined.

Claim Rejections - 35 USC § 102

- 2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
 - (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 3. Claims 1-6, 8-15, 17-22, 24-31, 33-37, 41-47, 49-55, and 57-72 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Czerwinski et al. "An Architecture for a Secure Service Discovery Service" (hereinafter Czerwinski).
- 4. As per claim 1, 27, 43, 51, and 62, Czerwinski discloses a method for communicating in a distributed computing environment, comprising: a client accessing an authentication service to obtain an authentication credential to use a first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); determining client capabilities for said client, wherein said client capabilities are capabilities of said first service that said client is permitted to use (Czerwinski: page 28 section 3.1: the capability manager capabilities to clients so that clients can pass the capability-based access control system of the SDS); binding said client capabilities to said authentication credential (Czerwinski: page 28 section 3.4: the authentication credential includes the capability and distributed after authentication); said client sending a first message to said first service, wherein said first message includes said authentication credential (Czerwinski:

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page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); said first service using said authentication service to authenticate said authentication credential received in said first message (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); and said first service responding to said first message if said authentication credential in said first message is determined to be authentic as from said client (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).

- 5. As per claim 2 and 28, Czerwinski discloses the method as recited in claims 1 and 27 respectively. Czerwinski further discloses the method comprising said client obtaining an address for said authentication service from an advertisement for said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said accessing an authentication service comprises said client sending a message to said address for said authentication service requesting said authentication credential to use said advertised first service. (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).
- 6. As per claim 3 and 44, Czerwinski discloses the method as recited in claims 2 and 43 respectively. Czerwinski further discloses wherein said advertisement for said first service includes a data representation language schema defining a message interface for accessing said first service (Czerwinski: page 27 section 3.1: a client submits a query in the form of an XML template).

- 7. As per claim 4 and 45, Czerwinski discloses the method as recited in claims 3 and 44 respectively. Czerwinski further discloses wherein said first message corresponds to a message defined in said data representation language schema (Czerwinski: page 27 section 3.1: a client submits a query in the form of an XML template).
- 8. As per claims 5, 30, 46, and 54, Czerwinski discloses the method as recited in claims 4, 29, 45, and 53
- 9. respectively. Czerwinski further discloses the method comprising said client sending additional messages to said first service to use said first service, wherein said authentication credential is included with each one of said additional messages, and wherein each one of said additional messages is defined by said data representation language schema (Czerwinski: page 27 section 3.1: a client uses Authenticated RMI).
- 10. As per claim 6, 31, 47, 55, and 65, Czerwinski discloses the method as recited in claims 5, 29, 44, 53, and 64 respectively. Czerwinski further discloses wherein said data representation language schema is an eXtensible Markup Language (XML) schema (Czerwinski: page 27 section 3.1: a client uses Authenticated RMI).
- 11. As per claim 8, 33, and 49, Czerwinski discloses the method as recited in claims 7, 32, and 43 respectively. Czerwinski further discloses the method comprising: said client sending a request message to said first service to access a capability of said first service wherein said request includes said authentication credential (Czerwinski: page 26 section 3.1 and page 27

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section 3.3 and page 28 section 3.4); said first service determining that the capability requested in said request message is within said client capabilities (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); and said first service fulfilling said request message only if the capability requested in said request message is within said client capabilities (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).

- 12. As per claim 9 and 34, Czerwinski discloses the method as recited in claims 7 and 32 respectively. Czerwinski further discloses wherein said determining client capabilities comprises said client accessing an access policy service to obtain a capability token indicating which capabilities of said first service said client is permitted to access (Czerwinski: page 28 section 3.4).
- 13. As per claim 10 and 35, Czerwinski discloses the method as recited in claims 9 and 34 respectively. Czerwinski further discloses wherein said authentication service and said access policy service are combined as a single service and wherein said capability token is included within said authentication credential (Czerwinski: page 28 section 3.4).
- 14. As per claim 11, Czerwinski discloses the method as recited in claim 7. Czerwinski further discloses wherein said determining client capabilities is performed by said first service(Czerwinski: page 28 section 3.4).

- 15. As per claim 12 and 36, Czerwinski discloses the method as recited in claims 1 and 27 respectively. Czerwinski further discloses the method comprising said client generating a message gate for accessing said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said message gate sends request messages from said client to said first service to access said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), and wherein said message gate includes said authentication credential in each message to said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).
- 16. As per claim 13, Czerwinski discloses the method as recited in claim 12. Czerwinski further discloses the method comprising said client obtaining a service advertisement for said first service before accessing said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said service advertisement comprises an address for said authentication service and an address for said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).
- 17. As per claim 14, 53, and 64, Czerwinski discloses the method as recited in claims 13, 52, and 63_respectively. Czerwinski further discloses wherein said service advertisement further comprises a data representation language schema defining a message interface for accessing said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said message gate verifies that each message sent from said client to said first service

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complies with said data representation language schema (Czerwinski: page 26 section 3.1, page 27 section 3.3, page 28 section 3.4, page 25 sections 2.2-2.3).

- 18. As per claim 15, Czerwinski discloses the method as recited in claim 1. Czerwinski further discloses wherein said authentication service is a separately addressable service from said first service (Czerwinski: page 26 section 3.1, page 27 sections 3.3, page 28 section 3.4, and page 32 section 6.1).
- 19. As per claim 17, 58, and 69, Czerwinski discloses a method for communication in a distributed computing environment, comprising: a client obtaining a service advertisement for a first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said service advertisement includes an address for an authentication service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); said client sending a request message to said authentication service to obtain an authentication credential to use said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); said client generating a message gate for accessing said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said message gate embeds said authentication credential in every message from said client to said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); and said client accessing said first service through said message gate (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.1 and page 27 section 3.3 and page 28 section 3.1 and page 27 section 3.3 and page 28 section 3.1 and page 27 section 3.3 and page 28 section 3.1 and page 27 section 3.3 and page 28 section 3.1 and

- 20. As per claim 18, 29, 37, and 59, Czerwinski discloses the method as recited in claims 17, 28, 36, and 58 respectively. Czerwinski further discloses wherein said service advertisement further comprises a data representation language schema defining a message interface for accessing said first service (Czerwinski: page 27 section 3.1: a client uses Authenticated RMI), the method further comprising said message gate verifying that every message sent from said client to said first service complies with said data representation language schema (Czerwinski: page 27 section 3.1: a client uses Authenticated RMI).
- 21. As per claim 19 and 60, Czerwinski discloses the method as recited in claims 18 and 59 respectively. Czerwinski further discloses wherein said data representation language schema is an eXtensible Markup Language (XML) schema and said messages from said client to said first service are XML messages (Czerwinski: page 27 section 3.1: submit XML query).
- 22. As per claim 20, Czerwinski discloses the method as recited in claim 17. Czerwinski further discloses the method comprising said first service using said authentication service to determine if said authentication credential received in a first message from said client is authentic (Czerwinski: page 28 section 3.4).
- 23. As per claim 21 and 61, Czerwinski discloses the method as recited in claims 20 and 58 respectively. Czerwinski further discloses the method comprising, after authenticating said authentication credential received in said first message from said client, said first service determining which capabilities of said first service said client is authorized to use (Czerwinski:

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page 28 section 3.4), wherein said first service responds to a request message from said client only if said request message is for an authorized capability for said client (Czerwinski: page 28 section 3.4).

- 24. As per claim 24, Czerwinski discloses the method as recited in claim 17. Czerwinski further discloses wherein said service advertisement for said first service further includes an address for accessing said first service, wherein said authentication service and said first service are separate services within the distributed computing environment (Czerwinski: page 28 section 3.1).
- 25. As per claim 25, Czerwinski discloses the method as recited in claim 17. Czerwinski further discloses wherein said service advertisement further includes a service identifier token for said first service, wherein said client sending a request message to said authentication service to obtain an authentication credential comprises sending said service identifier token and a client identifier token to said authentication service (Czerwinski: page 28 section 3.4: binding the principal name and the service name and signed by some well known authority).
- 26. As per claim 26, Czerwinski discloses the method as recited in claim 25. Czerwinski further discloses wherein said authentication service generates said authentication credential from said client identifier token and said service identifier token (Czerwinski: page 28 section 3.4: binding the principal name and the service name and signed by some well known authority).

- 27. As per claim 41 and 57, Czerwinski discloses the client device as recited in claims 27 and 51 respectively. Czerwinski further discloses wherein said authentication service is configured to execute within an authentication server (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); wherein said first service is configured to execute within a service device (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); and wherein said client device, said service device, and said authentication server are separate devices comprised in a distributed computing environment (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).
- 28. As per claim 42, Czerwinski discloses the client device as recited in claim 27. Czerwinski further discloses wherein said first service is configured to execute within said client device (Czerwinski: page 27 section 3.1: remote method invocation).
- 29. As per claim 50, Czerwinski discloses the service device as recited in claim 43. Czerwinski further discloses wherein said client is configured to execute within a client device, and wherein said service device and said client device are separate devices comprised in a distributed computing environment (Czerwinski: page 36 section 3.1).
- 30. As per claim 52 and 63, Czerwinski discloses the system as recited in claims 51 and 62 respectively. Czerwinski further discloses wherein the service device is further configured to provide to said client device an advertisement for said service device (Czerwinski: page 26 section 3.1 and page 25 section 2.3), wherein said advertisement includes a data representation

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language schema defining a message interface for accessing said service device (Czerwinski: page 26 section 3.1 and page 25 section 2.3); wherein the client device is further configured to obtain an address for said authentication service from said advertisement for said service device (Czerwinski: page 26 section 3.1 and page 25 section 2.3); and wherein, in said accessing an authentication service, the client device is further configured to send a message to said address for said authentication service requesting said authentication credential to use said advertised service device (Czerwinski: page 26 section 3.1, page 25 section 2.3, and page 27 section 3.3).

- 31. As per claim 66, Czerwinski discloses the carrier medium as recited in claim 62. Czerwinski further discloses wherein the program instructions are further computer-executable to implement: said client sending a request message to said first service to access a capability of said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said request message includes said authentication credential (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); said first service determining that the capability requested in said request message is within said client capabilities (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); and said first service fulfilling said request message only if the capability requested in said request message is within said client capabilities (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).
- 32. As per claim 67, Czerwinski discloses the carrier medium as recited in claim 62. Czerwinski further discloses wherein the program instructions are further computer-executable to

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implement: said client generating a message gate for accessing said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); said message gate sending request messages from said client to said first service to an access said first service, wherein said message gate includes said authentication credential in each message to said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).

- 33. As per claim 68, Czerwinski discloses the carrier medium as recited in claim 67. Czerwinski further discloses wherein the program instructions are further computer-executable to implement: said message gate verifying that each message sent from said client to said first service complies with a data representation language schema (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4), wherein said data representation language schema defines a message interface for accessing said first service (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).
- 34. As per claim 70, Czerwinski discloses the carrier medium as recited in claim 69. Czerwinski further discloses wherein said service advertisement further comprises a data representation language schema defining a message interface for accessing said first service, and wherein the program instructions are further computer-executable to implement: said message gate verifying that every message sent from said client to said first service complies with said data representation language schema (Czerwinski: page 27 section 3.1).

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35. As per claim 71, Czerwinski discloses the carrier medium as recited in claim 70. Czerwinski further discloses wherein said data representation language schema is an eXtensible Markup Language (XML) schema and said messages from said client to said first service are XML messages (Czerwinski: page 27 section 3.1 and page 25 section 2.3).

36. As per claim 72, Czerwinski discloses the carrier medium as recited in claim 69. Czerwinski further discloses wherein the program instructions are further computer-executable to implement: said first service using said authentication service to determine if said authentication credential received in a first message from said client is authentic (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); said first service determining which capabilities of said first service said client is authorized to use (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4); and said first service responding to said first message from said client only if said first message is for an authorized capability for said client (Czerwinski: page 26 section 3.1 and page 27 section 3.3 and page 28 section 3.4).

Claim Rejections - 35 USC § 103

- 37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 38. Claims 16, 23, 38, 39, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Czerwinski in view of Johnson et al. U.S. Pat. No. 5560008 (hereinafter Johnson).

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39. As per claim 16 and 38, Czerwinski discloses the method as recited in claims 1 and 27 respectively. Czerwinski does not explicitly discloses wherein said client accessing an authentication service to obtain an authentication credential to use a first service comprises said authentication service returning said authentication credential to said client only if said client is authorized to access said first service. However, Johnson discloses a server creates authentication credential for client based on the security facts of clients and server authenticates client based on capabilities (Johnson: column 5 lines 30-65). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Johnson within the system of Czerwinski because establishing client's authentication credential by authentication server to eliminate the need for authentication repeatedly thus increases efficiency of communication.

40. As per claim 22 and 23, Czerwinski discloses the method as recited in claims 21 and 20 respectively. Czerwinski does not explicitly disclose the method further comprising said first service noting whether or not said authentication credential is authentic so that said first service does not need to repeat said using said authentication service to determine if said authentication credential received in a first message from said client is authentic. However, Johnson discloses that limitation (Johnson: column 5 lines 30-65). Same rationale applies here as above in rejecting claim 16.

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As per claim 39 and 56, Czerwinski discloses the client device as recited in claims 27 and 51 respectively. Czerwinski does not explicitly disclose wherein said authentication service and said first service are configured to execute within a service device, and wherein said client device is further configured to couple to said service device via a network. However, Johnson discloses these limitations (Johnson: column 5 lines 30-65). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Johnson within the system of Czerwinski because it is well known in the art for a server to provide authentication and service together.

- 42. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Czerwinski in view of Applicant's Applied Prior Art (hereinafter AAPA).
- 43. As per claim 40, Czerwinski discloses the client device as recited in claim 27.

 Czerwinski does not explicitly disclose wherein said client device is further configured to couple to a network via a wireless connection. However, AAPA discloses that limitation (AAPA: related prior art: interconnecting devices from pda, cell phones, laptop computer, etc.). It would have been obvious to one having ordinary skill in the art to combine the teachings of AAPA within the system of Czerwinski because it is well known in the art to use wireless network to connect various types of electronic devices.

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Response to Arguments

44. Applicant's arguments filed 11/16/04 have been fully considered but they are not persuasive.

- 45. Regarding claim 1, applicant argues that Czerwinski fails to teach determining client capabilities for the client, and binding the client capabilities to the authentication credential. However, Czerwinski discloses the CM generates the capability after authentication so that the SDS can perform access control based on the capabilities sent by clients. Therefore, the capabilities received by the client from CM is actually the authentication credential and the applicant's argument is respectfully traversed.
- 46. Regarding claim 3, applicant argues that Czerwinski does not disclose said first service includes a data representation language schema defining a message interface for accessing said first service. However, Czerwinski discloses that a client submits a query in the form of an XML template so that the SDS can use the form to perform service for the client (page 27 section 3.1 paragraph 5). Therefore, the XML template is a data representation language schema to define a interface for the service to perform tasks.
- 47. Regarding claim 17, applicant argues that Czerwinski does not disclose the message gate embeds the authentication credential in every message. However, Czerwinski discloses that when the client sends a query to the SDS server, the client include the client's capabilities (access rights) (Czerwinski: page 27 section 3.1 paragraph 5). Therefore, applicant's argument is respectfully traversed.

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Conclusion

48. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shambroom U.S. Pat. No. 6301661 discloses enhanced security for applications employing downloadable executable content.

Trostle U.S. Pat. No. 6775783 discloses client security for networked applications.

Prabandham et al. U.S. Pat. No. 6668327 discloses distributed authentication mechanisms for handling diverse authentication systems in an enterprise computer system.

49. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shin-Hon Chen whose telephone number is (571) 272-3789. The examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shin-Hon Chen Examiner Art Unit 2131

ljuy J. Lamarre Primary Examiner

SC